

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>OPP021237KR</b>	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR 03/00447</b>	International filing date (day/month/year) <b>7 March 2003 (07.03.2003)</b>	(Earliest) Priority Date (day/month/year) <b>7 March 2002 (07.03.2002)</b>
Applicant <b>SAMSUNG ELECTRONICS CO., LTD</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.: 1A

☒ as suggested by the applicant.

☐ None of the figures.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 03/00447-0

## Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

A thin film transistor array panel is provided, which includes: an insulating substrate (110); a plurality of control lines (121) provided on the substrate and including first and second control lines; a plurality of data lines (171) provided on the substrate and including first and second data lines; a pixel electrode (190) provided on the substrate and having a cutout (191); a field control electrode (178) provided on the substrate and overlapping the cutout; a first switching element for applying a first signal from the first data line to the pixel electrode in response to a first control signal from the first control line; and a second switching element (2) for controlling a second signal to be applied to the field control electrode (178).

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 03/00447-0

## CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: G02F 1/1362, 1/1368

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6335771 B1 (HIRAISHI) 1 January 2002 (01.01.02) <i>column 8, line 38 - column 10, line 24; column 17, line 45 - column 22, line 13; fig. 1,3,16,17.</i>	1,13,19,26
A	US 6078367 A (SATO) 20 June 2000 (20.06.00) <i>column 5, line 25 - column 8, line 10; fig. 1-7.</i>	1,8,9,12,13,19,26
A	US 6335776 B1 (KIM et al.) 1 January 2002 (01.01.02) <i>column 1, lines 8-67; column 4, line 30 - column 6, line 9; fig. 2A-3B.</i>	1,9,12,13,19,26
A	US 2001/0024244 A1 (SON) 27 September 2001 (27.09.01) <i>abstract; fig. 6-9.</i>	1,8,10,13,19,26
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☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

„A“ document defining the general state of the art which is not considered to be of particular relevance

„E“ earlier application or patent but published on or after the international filing date

„L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

„O“ document referring to an oral disclosure, use, exhibition or other means

„P“ document published prior to the international filing date but later than the priority date claimed

„T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

„X“ document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

„Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

„&“ document member of the same patent family

Date of the actual completion of the international search

30 June 2003 (30.06.2003)

Date of mailing of the international search report

12 August 2003 (12.08.2003)

Name and mailing address of the ISA/AT

Austrian Patent Office  
Dresdner Straße 87, A-1200 Vienna

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR 03/00447-0

Patent document cited in search report			Publication date	Patent family member(s)			Publication date
US	AA	01002424	31-05-2001	AT	E	234314	15-03-2003
				AU	A1	50300/99	24-01-2000
				CA	AA	2336568	13-01-2000
				CN	T	1308633	15-08-2001
				DE	C0	69905894	17-04-2003
				EP	A1	1095049	02-05-2001
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				IL	A0	140488	10-02-2002
				JP	T2	03508344	04-03-2003
				WO	A1	00001707	13-01-2000
				KR	B1	261934	15-07-2000
				WO	A1	9700463	03-01-1997
US	A	6078367	20-06-2000	JP	A2	10142619	29-05-1998
				US	A	6104450	15-08-2000
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				JP	B2	3231638	26-11-2001
				DE	A1	19924545	09-12-1999
				FR	A1	2801408	25-05-2001
US	BA	6335776	01-01-2002	FR	B1	2801408	13-06-2003
				GB	A0	9912587	28-07-1999
				GB	A1	2337843	01-12-1999
				GB	B2	2337843	25-04-2001
				JP	A2	00029059	28-01-2000